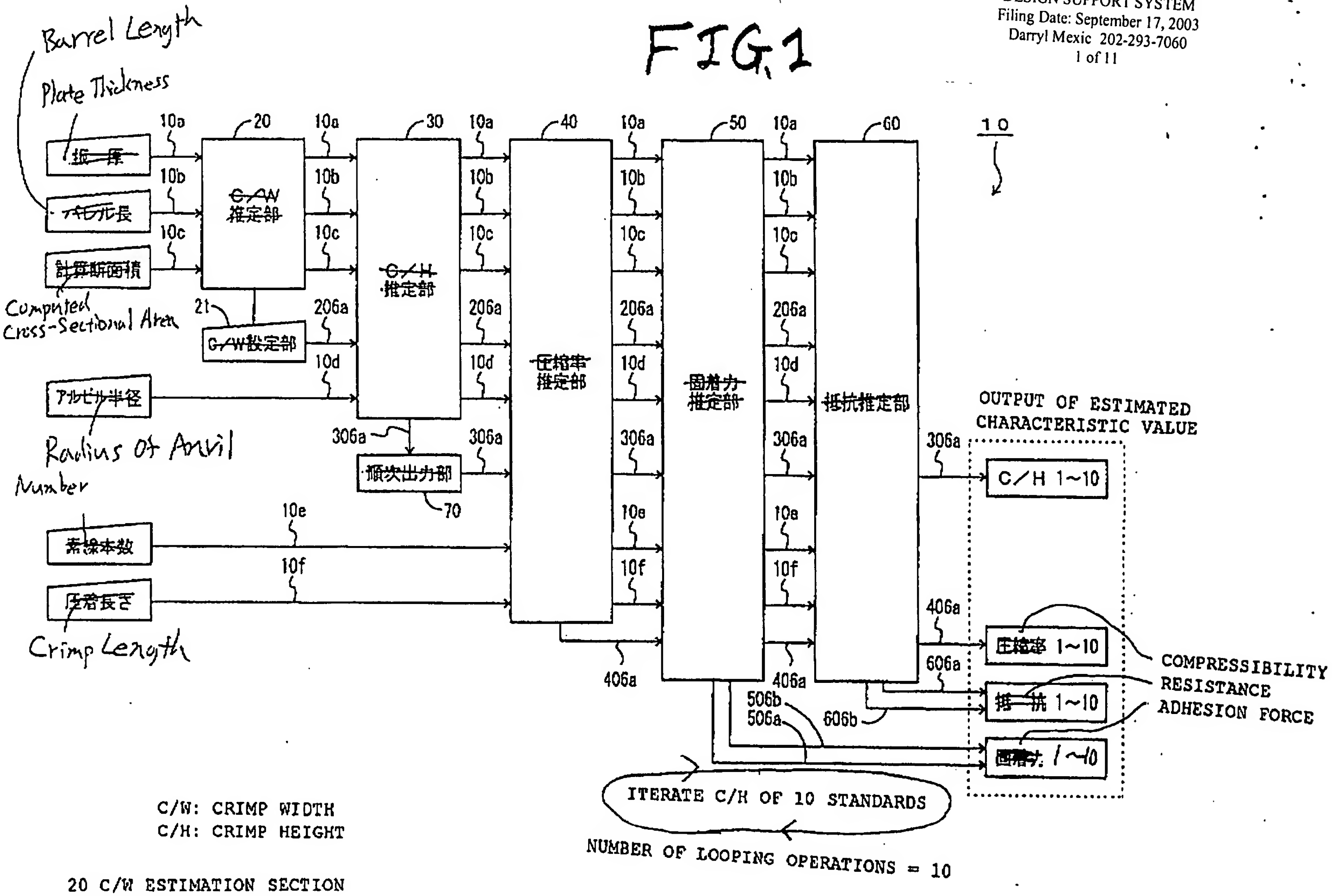
FIG.1



C/W: CRIMP WIDTH
C/H: CRIMP HEIGHT

20 C/W ESTIMATION SECTION
21 C/W SETTING SECTION
30 C/H ESTIMATION SECTION
40 COMPRESSIBILITY ESTIMATION SECTION
50 ADHESION FORCE ESTIMATION SECTION
60 RESISTANCE ESTIMATION SECTION
70 SEQUENTIAL OUTPUT SECTION

SELECTION ITEMS
WIRE SIZES (0.3 TO 8 mm^2),
TYPES OF CONSTITUENT WIRE (STANDARD, COMPRESSED, COAXIAL), AND
PLATED/NON-PLATED TERMINAL

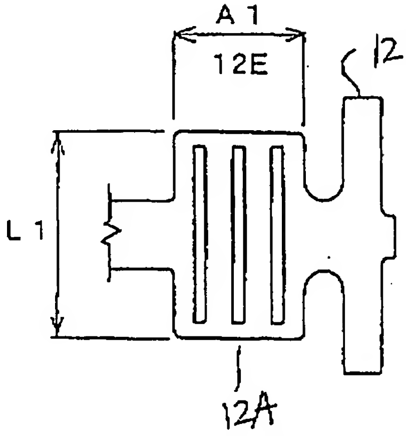


Fig. 2A

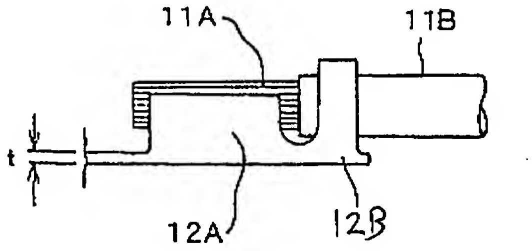


Fig. 2B

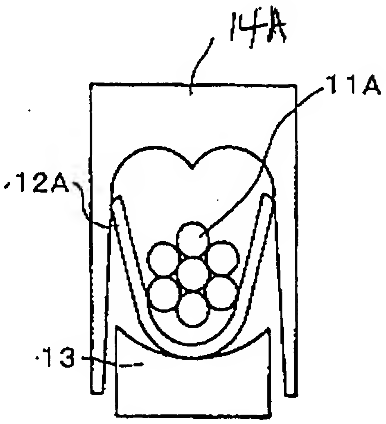


Fig. 2C

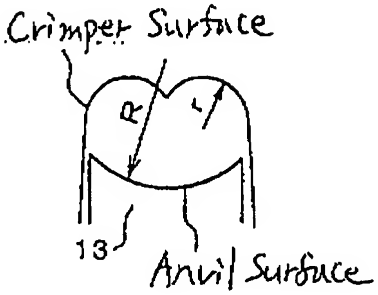


Fig. 2D

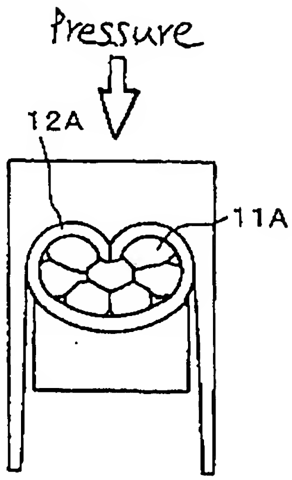


Fig. 2E

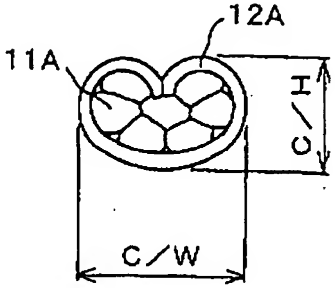


Fig. 2F

FIG. 3

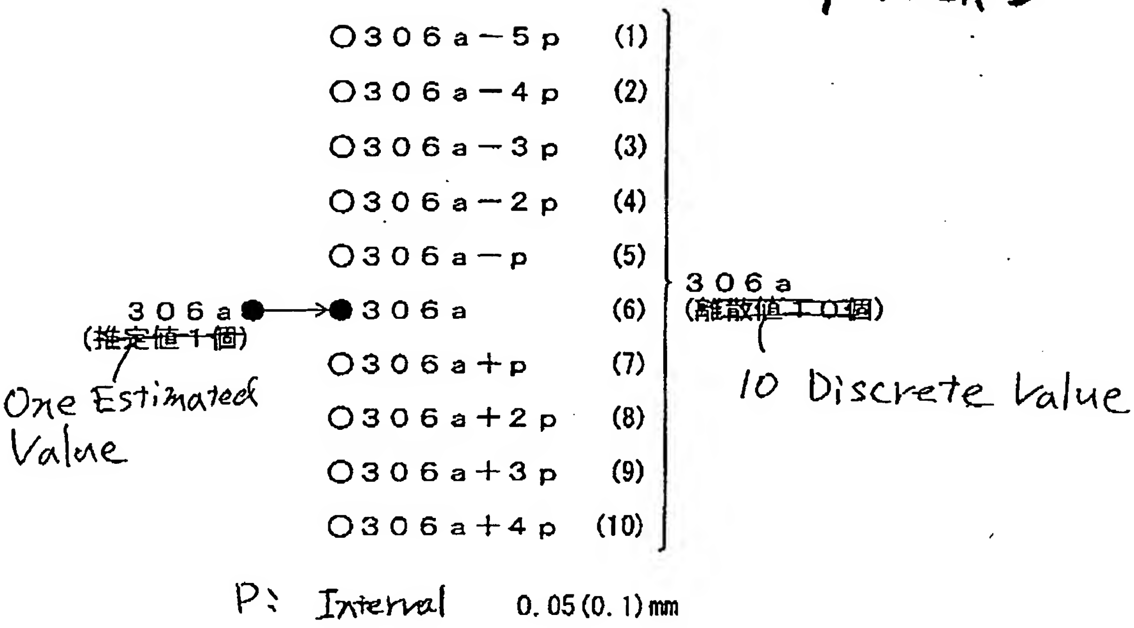

○306a−5p (1)
○306a−4p (2)
○306a−3p (3)
○306a−2p (4)
○306a−p (5)
●306a (6)
○306a+p (7)
○306a+2p (8)
○306a+3p (9)
○306a+4p (10)
306a ●
(~~推定値1個~~)
One Estimated Value
306a
(~~離散値10個~~)
10 Discrete Value
P: Interval 0.05(0.1)mm

FIG. 4

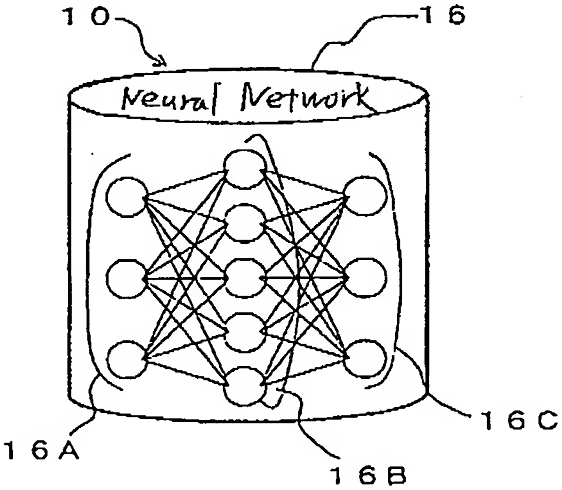

10
16
Neural Network
16A
16B
16C

Fig. 5A

```
                                              LIMIT VALUES
[REQUIREMENTS FOR ESTIMATION] ==================================================
WIRE TYPE                     AVSS-f          TERMINAL "t"        0.44mm
WIRE SIZE (NOMINAL SIZE)      0.75                  L1            8.00mm
TERMINAL PLATING, PLATED      YES                   A1            4.00mm
NEURO ESTIMATION                              COMPUTED CROSS-SECTIONAL AREA    0.7895mm^2
TYPE C/W                      2.77mm          NUMBER OF CONSTITUENT WIRES      19ea
C/H                           1.44mm          RADIUS OF ANVIL     2.40mm
```

Fig. 5B

```
[ESTIMATION RESULTS]============================================================
No.     C/H    COMPRESSIBILITY     ADHESION FORCE     RESISTANCE    CRIMP SHAPE
1       1.19         66.09              11.75            0.07
2       1.24         69.54              12.46            0.09
3       1.29         73.34              13.14            0.12
4       1.34         77.27              13.75            0.16
5       1.39         82.31              14.27            0.19
6       1.44         87.71              14.68            0.24
7       1.49         93.90              14.94            0.31
8       1.54        101.04              15.01            0.42
9       1.59        109.26              14.70            0.61
10      1.64        118.64              13.57            0.98

C/H CRIMP HEIGHT
C/W CRIMP WIDTH
```

Fig. 5C

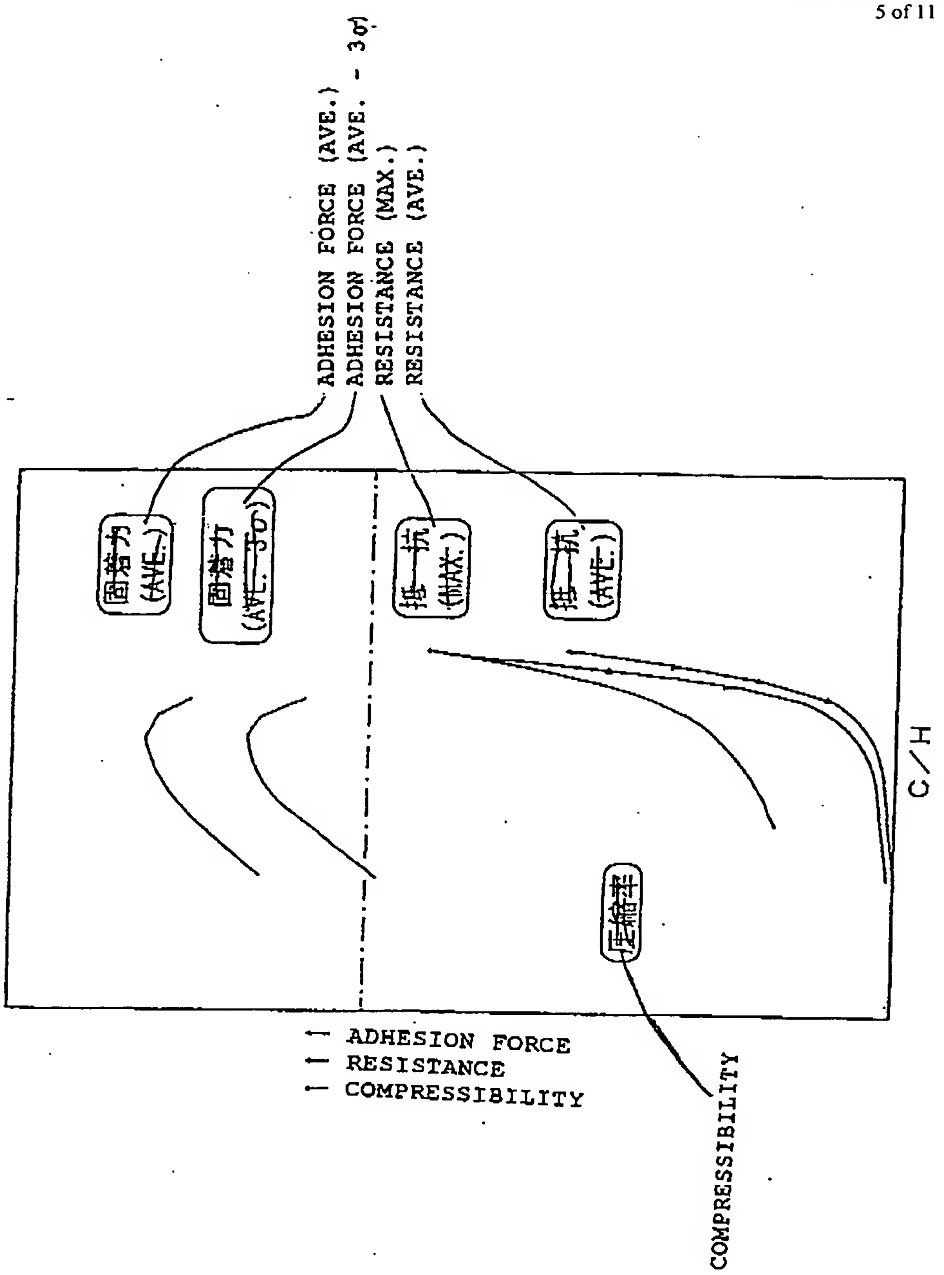
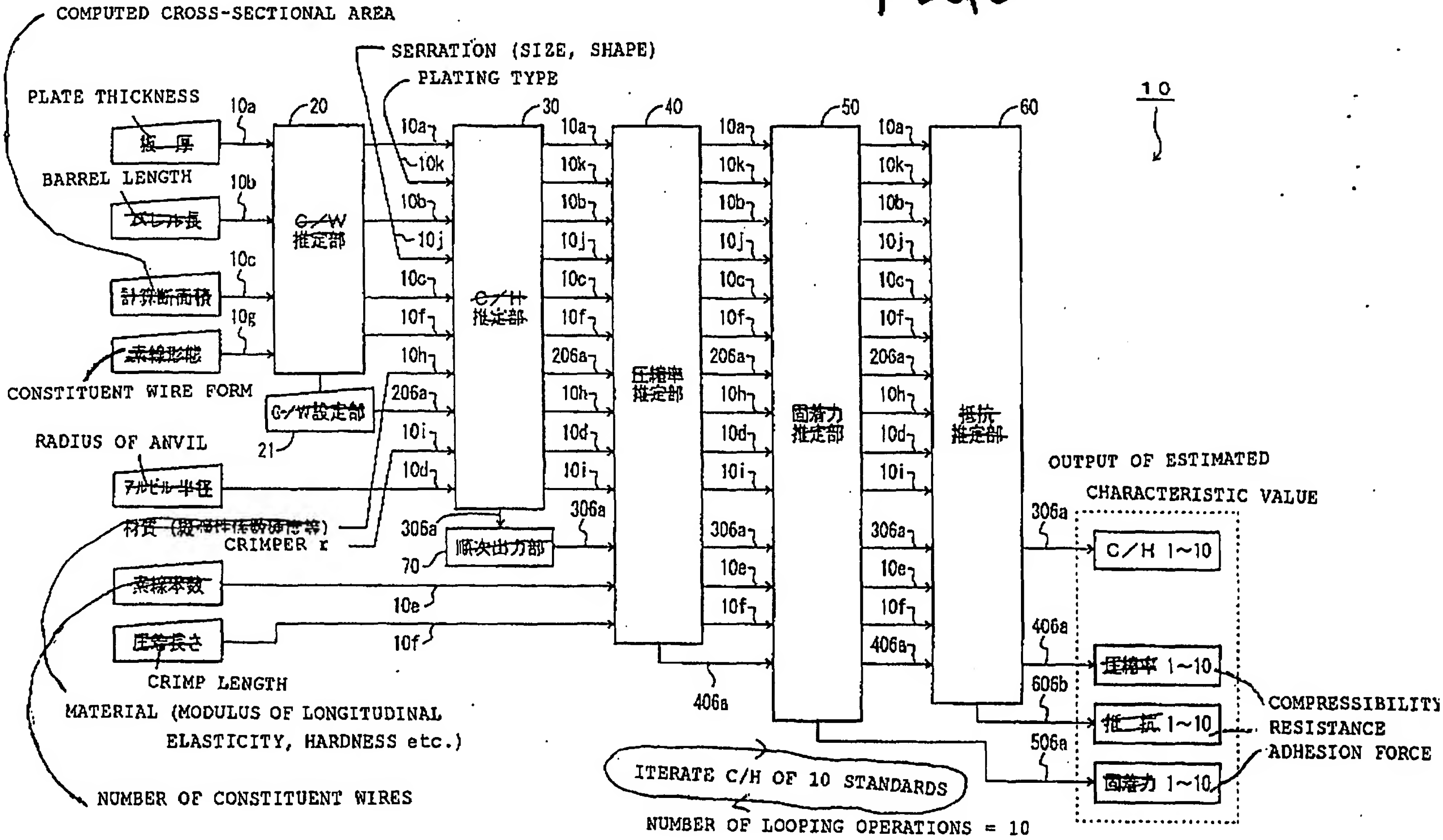

ADHESION FORCE (AVE.)
ADHESION FORCE (AVE. - 3σ)
RESISTANCE (MAX.)
RESISTANCE (AVE.)
固着力 (AVE.)
固着力 (AVE. − 3σ)
抵抗 (MAX.)
抵抗 (AVE.)
圧縮率
C/H
ADHESION FORCE
RESISTANCE
COMPRESSIBILITY
COMPRESSIBILITY

FIG6



20 C/W ESTIMATION SECTION
21 C/W SETTING SECTION
30 C/H ESTIMATION SECTION
40 COMPRESSIBILITY ESTIMATION SECTION
50 ADHESION FORCE ESTIMATION SECTION
60 RESISTANCE ESTIMATION SECTION
70 SEQUENTIAL OUTPUT SECTION

C/W: CRIMP WIDTH
C/H: CRIMP HEIGHT

CRIMPING [INTERNAL PROCESSING FLOW]

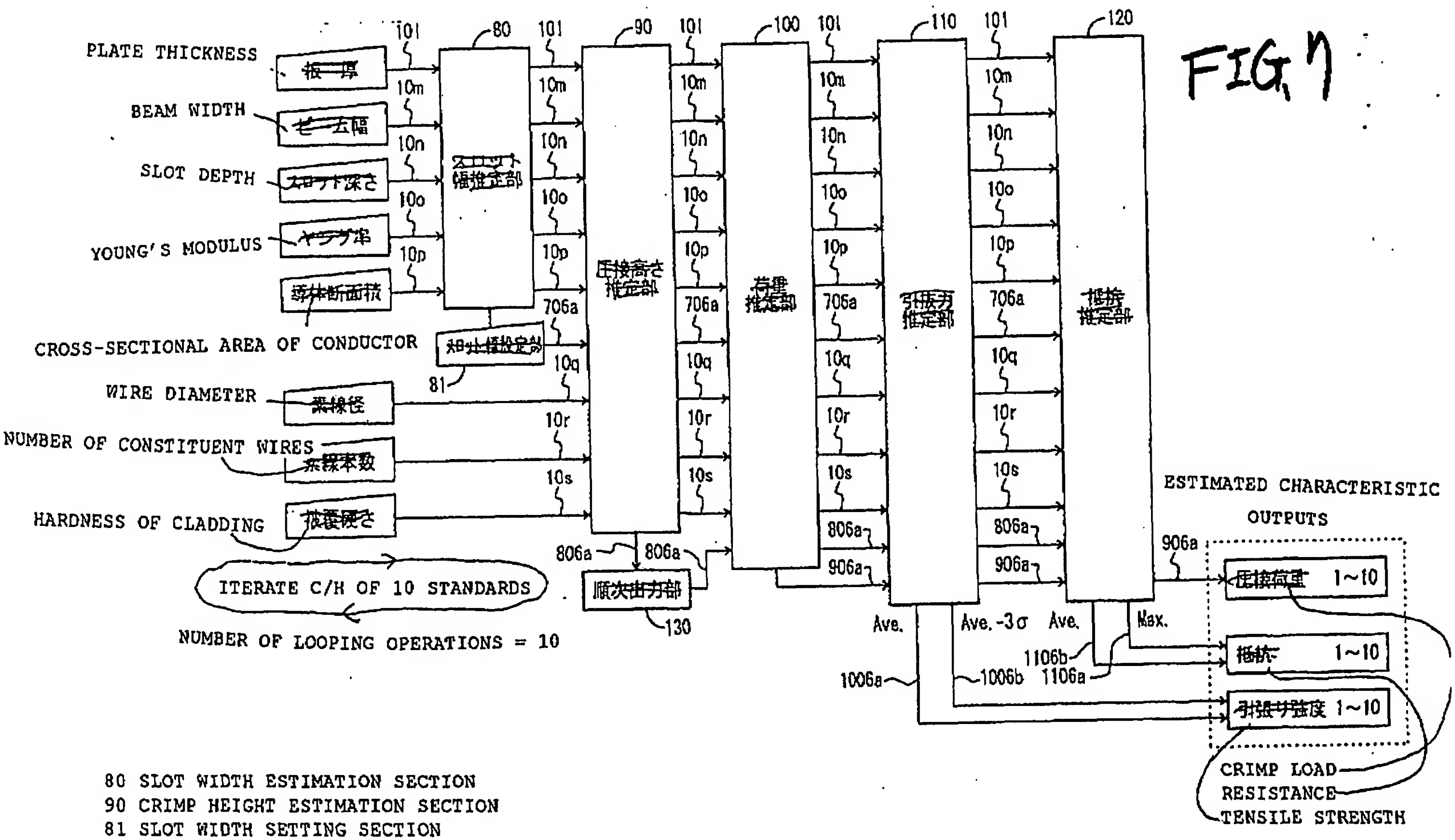


FIG 7

80 SLOT WIDTH ESTIMATION SECTION
90 CRIMP HEIGHT ESTIMATION SECTION
81 SLOT WIDTH SETTING SECTION
100 LOAD ESTIMATION
110 WITHDRAWAL FORCE ESTIMATION SECTION
120 RESISTANCE ESTIMATION SECTION
130 SEQUENTIAL OUTPUT SECTION

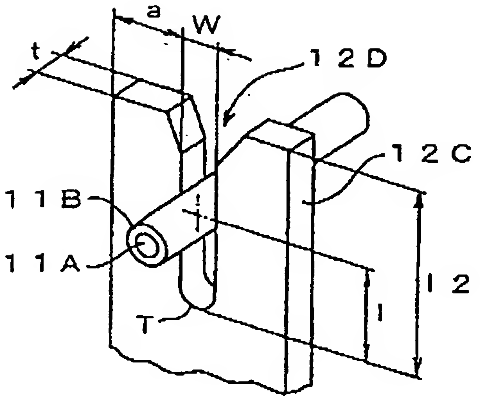


FIG.8A

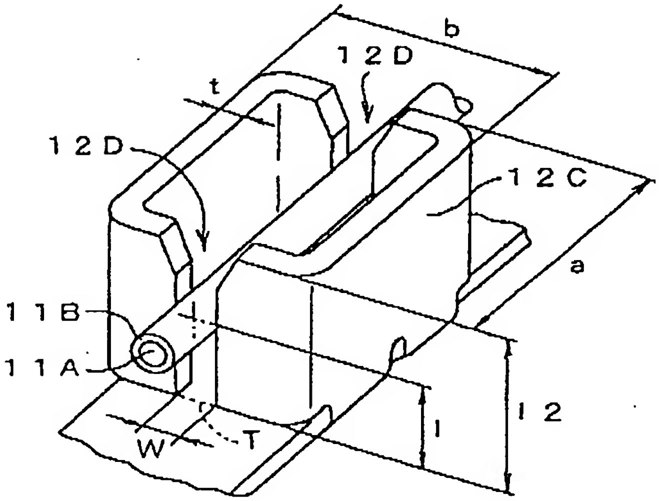
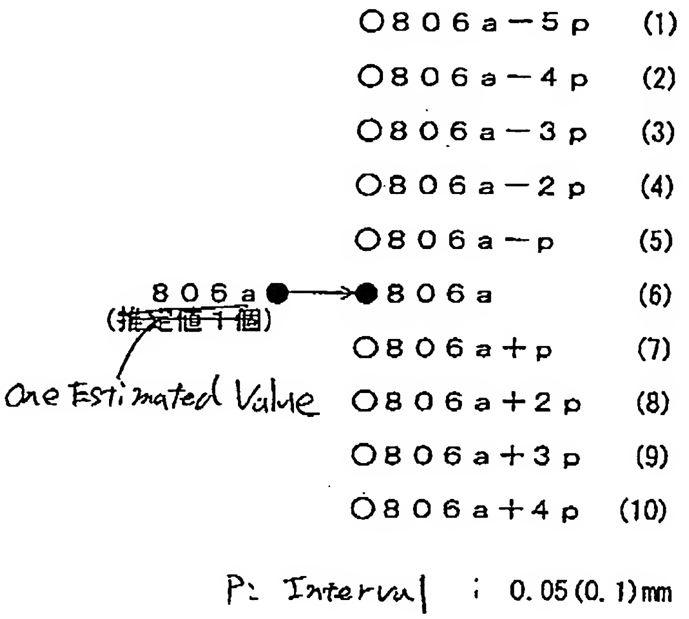


FIG.8B

FIG.9


○806a−5p (1)
○806a−4p (2)
○806a−3p (3)
○806a−2p (4)
○806a−p (5)
806a ●
(~~推定値1個~~)
One Estimated Value
●806a (6)
○806a+p (7)
○806a+2p (8)
○806a+3p (9)
○806a+4p (10)
P: Interval : 0.05(0.1)mm

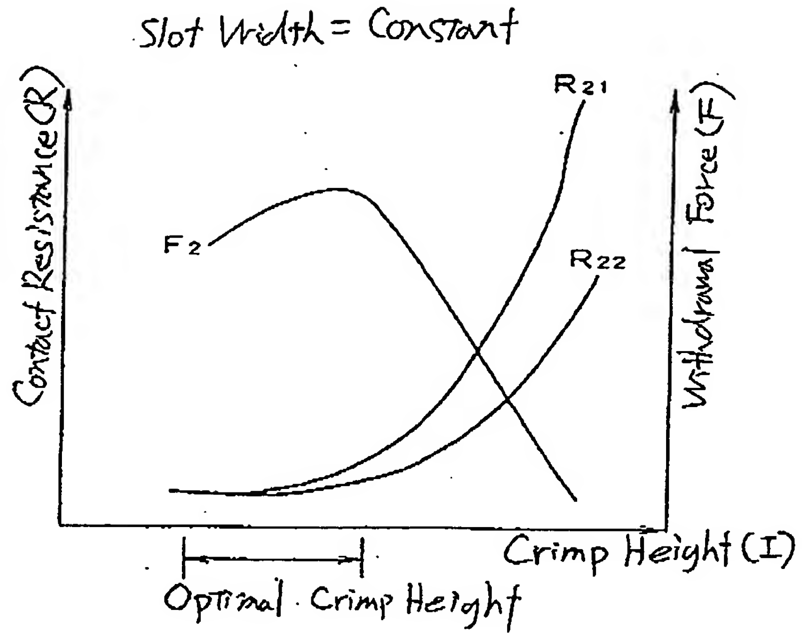


FIG. 10A

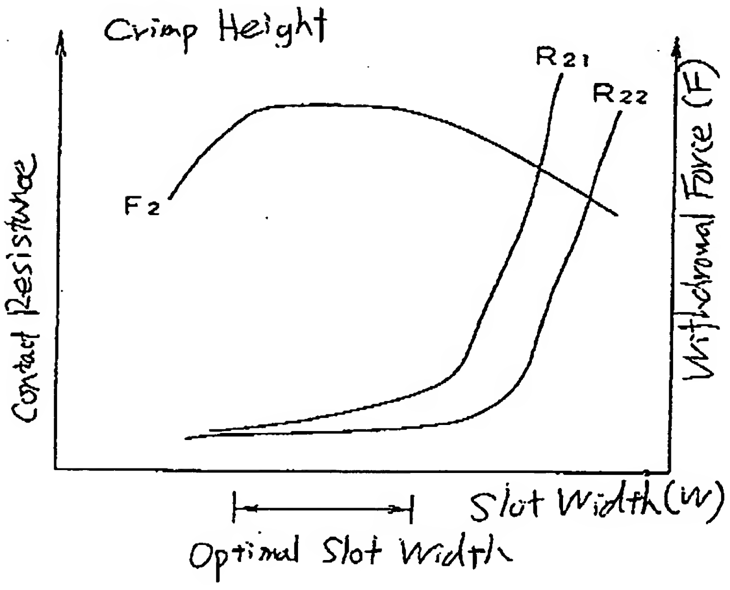


FIG 10B

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DESIGN SUPPORT SYSTEM
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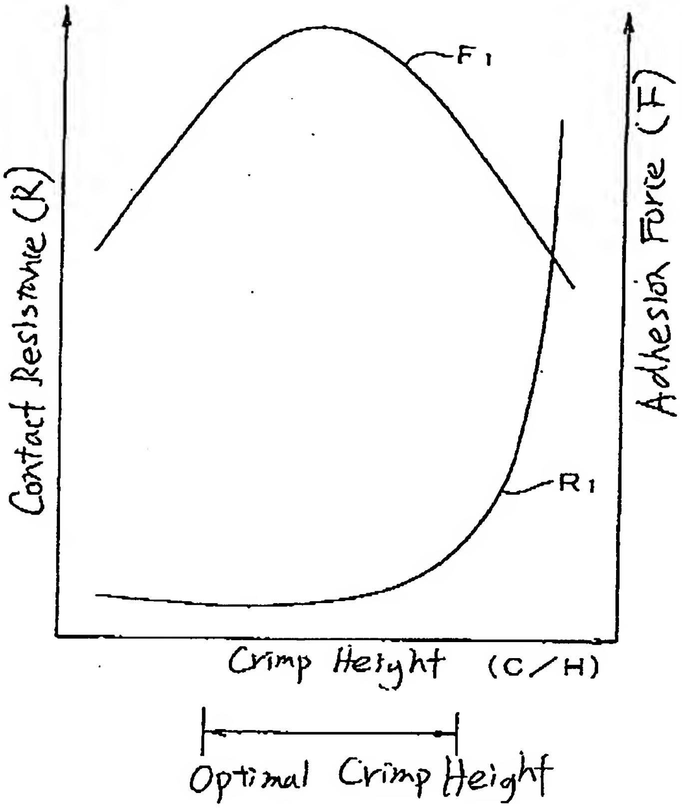

FIG.11